NPL-U7-2-133

C.3
08/31/87

National Priorities List

Superfund hazardous waste site listed under the
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended in 1986

ALBION-SHERIDAN TOWNSHIP LANDFILL
Albion, Michigan

Albion-Sheridan Township Landfill covers 30 acres 1 mile east of Albion, Calhoun County, Michigan. During 1966, the privately owned landfill accepted municipal refuse and industrial wastes from Albion and nearby Sheridan Township. According to the owner, the landfill accepted 200-300 cubic yards of sludges from the Union Steel Products plant prior to November 1981. Tests conducted by the Michigan Department of Natural Resources in 1980 indicated that the sludges contain chromium, cadmium, lead, copper, nickel, and cyanide. Paint residues were also accepted from an unknown source.

In an inspection in March 1986, EPA found approximately 40 drums on the surface, some filled with what appeared to be oil and grease wastes. The landfill was covered with sand and gravel, and there were signs of burning. Some vegetation had grown on the cover.

The landfill was unlined. Soils are permeable and ground water shallow (10 feet). These conditions facilitate movement of contaminants into ground water. An estimated 13,500 people obtain drinking water from public and private wells within 3 miles of the site.

The site is unfenced, making it possible for people and animals to come into direct contact with hazardous substances.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Date: July 31, 1995

Identification Number: MID980504450
Site Name: Albion-Sheridan Township Landfill
Region: 5

This notice is included in the Hazard Ranking System package located within each Regional docket and the Headquarters docket to clarify what the National Priorities Site, Albion-Sheridan Township Landfill, represents. This has been added to ensure that the listing is consistent with policy.

When a site is listed, it is necessary to identify or define the release (or releases) encompassed within the listing. The approach generally used is to delineate a geographical area (usually the area within the installation or plant boundaries) and define the site by reference to that area. As a legal matter, the site is not coextensive with that area, and the boundaries of the installation or plant are not the "boundaries" of the site. Rather, the site consists of all contaminated areas within the area used to define the site, and any other location to which contamination from that area has come to be located.

While geographic terms are often used to designate the site (e.g., the "Jones Co. plant site") in terms of the property owned by the particular party, the site properly understood is not limited to that property (e.g., it may extend beyond the property due to contaminant migration), and conversely may not occupy the full extent of the property (e.g., where there are uncontaminated parts of the identified property, they may not be, strictly speaking, part of the "site"). The "site" is thus neither equal to nor confined by the boundaries of any specific property that may give the site its name, and the name itself should not be read to imply that this site is coextensive with the entire area within the property boundary of the facility or plant. The precise nature and extent of the site are typically not known at the time of listing.

NPL-UT-2-133

Facility name: Albion-Sheridan Township Landfill

Location: 13355 29-Mile Road - Albion, MI

EPA Region: Chicago V

Person(s) in charge of the facility: Gordon Stevick owner
Lot #1 Crystal Lake
Cement City, MI

Name of Reviewer: Suzanne Kozlowski (FIT) Date: 8/31/87
General description of the facility: Renee Hno-Mary (FIT)
(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Albion-Sheridan Township Landfill is a closed landfill located one (1) mile east of Albion (population 11059) The landfill was active from 1966 until closure in 1981. Municipal refuse and industrial wastes including metallic sludges and paint residues were accepted at the 30 acre landfill. Chromium, cadmium, lead, copper, nickel and cyanide were detected in samples of the sludge.

Scores: $S_M = 33.79 S_{gw} - 58.46 S_{sw} = 0$ $S_a = 0$)
$S_{FE} = 0$
$S_{DC} = 0$

FIGURE 1
HRS COVER SHEET

QA
9/23/87

Ground Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	(0) 45	1	0	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					3.2
Depth to Aquifer of Concern	0 1 2 (3)	2	6	6	
Net Precipitation	0 (1) 2 3	1	1	3	
Permeability of the Unsaturated Zone	0 1 (2) 3	1	2	3	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			12	15	
3 Containment	0 1 2 (3)	1	3	3	3.3
4 Waste Characteristics					3.4
Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
Total Waste Characteristics Score			19	26	
5 Targets					3.5
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 (40)	1	40	40	
Total Targets Score			49	49	
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			33516	57,330	
7 Divide line 6 by 57,330 and multiply by 100			S_{gw} = 58.46		

FIGURE 2
GROUND WATER ROUTE WORK SHEET

GA
MHF
9/23/87

There is no surface water path for contaminants to follow.

Surface Water Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1		45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	0 1 2 3	1		3	
1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
Distance to Nearest Surface Water	0 1 2 3	2		6	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 18	1		18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				26	
5 Targets					4.5
Surface Water Use	0 1 2 3	3		9	
Distance to a Sensitive Environment	0 1 2 3	2		6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1		40	
Total Targets Score				55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				64,350	
7 Divide line 6 by 64,350 and multiply by 100	S_{SW} = 0				

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

MHF
9/23/87

Air Route Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
[1] Observed Release	0 45	1	○	45	5.1
Date and Location:					
Sampling Protocol:					
If line [1] is 0, the S_a = 0. Enter on line [5]. If line [1] is 45, then proceed to line [2].					
[2] Waste Characteristics					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score			20	
[3] Targets					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
	Total Targets Score			39	
[4] Multiply [1] x [2] x [3]				35,100	
[5] Divide line [4] by 35,100 and multiply by 100		S_a = ○			

FIGURE 9
AIR ROUTE WORK SHEET

MHE
9/23/87

	S	S^2
Groundwater Route Score (S_{gw})	58.46	3417.57
Surface Water Route Score (S_{sw})	0	0
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		3417.57
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		58.46
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		33.79

FIGURE 10
WORKSHEET FOR COMPUTING S_M

MHF
9/23/87

No state or local fire marshall has certified that the site poses a fire or explosion hazard

Fire and Explosion Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Targets Score				24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 4 by 1,440 and multiply by 100			S_{FE} = 0		

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

MHF
9/23/87

Direct Contact Work Sheet					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	(0) 45	1	0	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 (3)	1	3	3	8.2
3 Containment	(0) 15	1	0	15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5		15	8.4
5 Targets					8.5
Population Within a 1-Mile Radius	0 1 2 3 4 5	4		20	
Distance to a Critical Habitat	0 1 2 3	4		12	
	Total Targets Score			32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				21,600	
7 Divide line 6 by 21,600 and multiply by 100		S_{DC} = 0			

FIGURE 12
DIRECT CONTACT WORK SHEET

MHF
9/23/87

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given facility. As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference that will make the document used for a given data point easier to find. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review.

FACILITY NAME: Albion-Sheridan Township Landfill

LOCATION: 13355 29 Mile Road Albion, MI

QA
9/23/87

GROUND WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected (5 maximum):

No observed release has been documented.

Rationale for attributing the contaminants to the facility:

N/A

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

see attached page 2A

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

The water table in the upper aquifer is found between 10 feet (Ref 12 p. 15) and 13 feet (Ref 7 p. 6)

Depth from the ground surface to the lowest point of waste disposal/ storage:

The depth of deposit is unknown, six feet is assumed. (Ref 1, 47FR 31224)

Assign a value of 3 (Ref 1, 47FR31224)

MHF
9/23/87

Depth to Aquifer of Concern:

Groundwater in the site area is drawn from two distinct units. The uppermost unit consists of unconsolidated glacial deposits. These deposits of sand and gravel range in thickness from 41-90 feet. Underlying the glacial deposits is the Marshall Sandstone formation. Both of these units are used as aquifers (Ref 12 p. 3, 7, 13). There is a non continuous clay layer in the area (Ref 12 p 18; Ref 8 all well logs). Since the clay layer is not continuous, the two aquifers are considered to be hydraulically connected (Ref 12 p. 18). The Albion-Sheridan Township Landfill lies within the study area of the McGraw-Edison Hydrogeologic report (Ref 12 p. 5). The glacial drift cover overlying the Marshall sandstone at the site appears to be sandy clay and may be relatively permeable (Ref 16 p. 1, 2).

MHE
9/23/87

Net Precipitation

Mean annual or seasonal precipitation (list months for seasonal):

Mean annual values are used.
33" (Ref 1, 47FR31224)

Mean annual lake or seasonal evaporation (list months for seasonal):

Mean annual values are used.
31" (Ref 1, 47FR31224)

Net precipitation (subtract the above figures):

33"-31"=2"

Assign a value of 1 (Ref 1, 47FR31224)

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

The soil consists of sands and gravels overlying the aquifer (Ref 12 p. 3, 7, 15)

Permeability associated with soil type:

The permeability lies between 10^{-4} - 10^{-5} cm/sec. (Ref 12 p. 17)

Assign a value of 2 (Ref 1, 47FR31224)

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

Metallic sludges were disposed of at the landfill. (Ref 4)

Assign a value of 3 (Ref 1, 47FR31229)

* * *

MHE
9/23/87

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

There is no evidence that the landfill has an adequate compatible liner (Ref 14, p.2; Ref 16 p.1; Ref 17 p6)

Method with highest score:

Landfill, no liner

Assign a value of 3 (Ref 1, 47FR31229)

4 WASTE CHARACTERISTICS

Toxicity and Persistence — Waste characteristics from sludge sampling on 7/16/80 by MDNR (Ref 3)

Compound(s) evaluated:

COMPOUND	TOXICITY	PERSISTANCE	MATRIX
chromium (REF. 3)	3 (REF. 2 p. 791)	3 (REF. 1 47FR31229)	18 (REF. 1 47FR31229)
cadmium (REF. 3)	3 (REF. 2 p. 612)	3 (REF. 1 47FR31229)	18 (REF. 1 47FR31229)
lead (REF. 3)	3 (REF. 2 p. 1089)	3 (REF. 1 47FR31229)	18 (REF. 1 47FR31229)
cyanide (REF 3)	3 (REF. 2 p. 822)	1 (REF. 1 47FR31229)	12 (REF. 1 47FR31229)
(REF.)	. (REF. p.)	(REF. 47FR31229)	(REF. 47FR31229)

Compound with highest score:

Chromium, cadmium and lead all score an 18.

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

Estimates range from 200 cubic yards (ref 6) to 6,000 cubic yards (ref 18). However, the exact quantity is unknown.

Basis of estimating and/or computing waste quantity:

A score of 1 is assigned (Ref 1 47FR31229)

* * *

MHE
9/23/87

5 TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:
Drinking water (Ref 7, 8). There is not an available surface water supply (Ref 9). There are other geologic formations that contain water, however, there are questions about the quality and quantity. Also, it is expensive to drill that deep (Ref 12 p 14) Both aquifers are of concern (Ref 12 p. 18). Municipal and private wells are used (Ref 7, Ref 8, Ref 10).

Distance to Nearest Well — Assign a value of 3

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

1/2 mi east of Finley Road on North side of Erie Road (Ref 7 well log #6). Well is on site, at the operators trailer (Ref 17 p 20). Since the sludge has been moved

Distance to above well or building: around an exact measurement can't be made (Ref 18). However the site is 30 acres (Ref 17 p 2), so the furthest distance from the landfill NW corner to the trailer is approximately 1,616 ft (ref 9).
$43560 ft^2/acre \times 30 acres = 1306800 ft^2 = \sqrt{1306800} = 1143 ft.$ $1143^2 + 1143^2 = c^2$
$c = 1,616$

Population Served by Ground Water Wells Within a 3-Mile Radius — Assign a value of 4

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

see page 5A

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

There is no land irrigated by groundwater in a 3 mile radius of the site (Ref 13)

Total population served by ground water within a 3-mile radius:

Albion 11270 (Ref 10)
House count 2257 (Ref 9, 11)

13527 total population served. Assign a value of 5 - Matrix value = 40.

5

MDE
9/23/87

5A

Population Served by Ground Water Wells Within a 3-mile Radius

The city of Albion uses a six well system. All wells are approximately 250' deep and draw from the Marshall Sandstone aquifer (Ref 8; Ref 7 log #2, 3). People outside of the municipal boundaries use private wells that range in depth from 49'-350'. These wells all draw from the Marshall Sandstone (Ref 7, all logs). The Marshall Sandstone is overlaid by a relatively permeable layer of granular sand and gravel (Ref 12 p. 3; Ref 16 p. 1). There are some impermeable layers of silty clay between the sand and gravel aquifer and the Marshall Sandstone aquifer, however, these clay layers are not continuous (Ref 12 p. 18). According to Municipal Water Withdrawals in Michigan, Albion wells serve 11,270 (Ref 10). A house count of those people not served by Albion municipal water was done. In the three mile radius there are 594 houses not served.
$594 \times 3.8 = 2257$ people (Ref 11, 9, 8).

MHF
9/23/87

SURFACE WATER ROUTE

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

The railroad tracks and Erie Road inhibit any contaminants from flowing to the Kalamazoo River, the nearest downslope surface water. (Ref 9) There is no surface water migration path so the route cannot be scored. (Ref 6)

Rationale for attributing the contaminants to the facility:

NA

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

NA

Name/description of nearest downslope surface water:

NA

Average slope of terrain between facility and above-cited surface water body in percent:

NA

Is the facility located either totally or partially in surface water?

NA

MHF
9/23/87

Is the facility completely surrounded by areas of higher elevation?

NA

1-Year 24-Hour Rainfall in Inches

NA

Distance to Nearest Downslope Surface Water

NA

Physical State of Waste

NA

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

NA

Method with highest score:

NA

MH
9/23/87

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated

NA

Compound with highest score:

NA

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give a reasonable estimate even if quantity is above maximum):

NA

Basis of estimating and/or computing waste quantity:

NA

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

NA

MF
9/23/87

Is there tidal influence?

NA

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

NA

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

NA

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

NA

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

NA

MHF
9/23/87

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

NA

Total population served:

NA

Name/description of nearest of above water bodies:

NA

Distance to above-cited intakes, measured in stream miles.

NA

MHF
9/23/87

1 OBSERVED RELEASE

Contaminants detected:

No air sampling performed because the site does not pose an air threat

Date and location of detection of contaminants

NA

Methods used to detect the contaminants:

NA

Rationale for attributing the contaminants to the site:

NA

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

NA

Most incompatible pair of compounds:

NA

MAE
9/23/87

Toxicity

Most toxic compound:

NA

Hazardous Waste Quantity

Total quantity of hazardous waste:

NA

Basis of estimating and/or computing waste quantity:

NA

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi 0 to 1 mi 0 to 1/2 mi 0 to 1/4 mi

NA

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

NA

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

NA

MAF
9/23/87

Distance to critical habitat of an endangered species, if 1 mile or less:

NA

Land Use

Distance to commercial/industrial area, if 1 mile or less:

NA

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

NA

Distance to residential area, if 2 miles or less:

NA

Distance to agricultural land in production within past 5 years, if 1 mile or less:

NA

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

NA

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

NA

MHE
9/23/87

No state or local fire marshall has certified that the site poses a fire or explosion threat. (Ref 5)

1 CONTAINMENT

Hazardous substances present:

NA

Type of containment, if applicable:

NA

* * *

2 WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

NA

Ignitability

Compound used:

NA

Reactivity

Most reactive compound:

NA

Incompatibility

Most incompatible pair of compounds:

NA

* * *

MHE
9/23/87

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility:

NA

Basis of estimating and/or computing waste quantity:

NA

* * *

3 TARGETS

Distance to Nearest Population

NA

Distance to Nearest Building

NA

Distance to Sensitive Environment

Distance to wetlands:

NA

Distance to critical habitat:

NA

Land Use

Distance to commercial/industrial area, if 1 mile or less:

NA

MHP
9/23/87

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

NA

Distance to residential area, if 2 miles or less:

NA

Distance to agricultural land in production within past 5 years, if 1 mile or less:

NA

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

NA

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

NA

Population Within 2-Mile Radius

NA

Buildings Within 2-Mile Radius

NA

MHF
9/23/87

1 OBSERVED INCIDENT

Date, location, and pertinent details of incident:

No incident has been documented.

* * *

2 ACCESSIBILITY

Describe type of barrier(s):

The landfill is closed and covered. Vegetation is present (Ref. 17 p. 6). Containment of sludges score = 0. Direct contact route = 0.

* * *

3 CONTAINMENT

Type of containment, if applicable:

* * *

4 WASTE CHARACTERISTICS

Toxicity

Compounds evaluated:

COMPOUND	TOXICITY
(REF.)	(REF. P.)
(REF.)	(REF. P.)
(REF.)	(REF. P.)
(REF.)	(REF. P.)
(REF.)	(REF. P.)

Compound with highest score:

* * *

MHF
9/23/87

5 TARGETS

Population within one-mile radius

Distance to critical habitat (of endangered species)

MAF
9/23/87

HRS DOCUMENTATION LOG SHEET

SITE NAME Albion Sheridan Township Landfill
CITY Albion STATE MI
IDENTIFICATION NUMBER MID980504450

REFERENCE NUMBER	DESCRIPTION OF THE REFERENCE
1	Federal Register, July 16, 1982
2	Sax, N. Irving, Dangerous Properties of Industrial Materials. 1984. 6th Edition. Van Nostrand Reinhold Company. 3124 pp.
3	Michigan Department of Natural Resources, Environmental Laboratory Analysis. Date of Sampling 7/16/80. Date of Report 8/11/80. Sample: Metallic Sludge. Inorganic Analysis. 2 pp.
4	Letter from Chester Harvey, Basin Engineer-Water Resources Commission to Mr. Stevick, landfill owner. Date: Nov. 24, 1971. Subject: Disposal of metallic sludge. 1 pp.
5	Phone conversation with Chief Baker, Albion Fire Marshall, (517) 629-3933. Date 10/10/86. Time 9:30 AM. 1 pp.
6	Memo to file from Suzanne Kozlowski, Ecology and Environment. October 10, 1986, 1 pp.
7	Well logs for Calhoun and Jackson County. Sheridan, Concord, Parma and Albion Townships. 50 pp.
8	Notes from visit to City of Albion Department of Public Works by Richard Dagnall, Ecology and Environment, Inc. 9/4/85 10:00AM. 2 pp.
9	U.S. Geological Survey. Southwest Albion Quad 1980,

MHF
9/23/87

HRS DOCUMENTATION LOG SHEET

SITE NAME Albion-Sheridan Township Landfill
CITY Albion STATE MI
IDENTIFICATION NUMBER MID 980504450

REFERENCE NUMBER	DESCRIPTION OF THE REFERENCE
	Southeast Albion Quad 1981, Northwest Albion Quad 1980, Northeast Albion Quad 1980. 7.5 minute series map.
10	Municipal Water Withdrawals in Michigan. DNR Water Management Division. Douglas J. Bedell. 1982. 43 pp.
11	House Count of Three-Mile Radius around Albion-Sheridan Township Landfill. Suzanne Kozlowski, Ecology and Environment. January 31, 1986. 1pp.
12	DuBose, Lawrence. Hydrogeologic Study McGraw-Edison Facility Albion, Michigan. Testing Service Corporation. 32 pp.
13	Phone conversation with Natalie Rector, Cooperative Extension Service. (616) 781-0784. 1pp.
14	Site Inspection Memo. To File from Suzanne Kozlowski. Subject: Albion-Sheridan Township Landfill. Date: March 19, 1986 2pp
15	Phone conversation with Ron Refsnider, Biologist Regional Endangered Species Office. (612) 725-3276. Paul Andersen. Date: 7/3/86. 1pp
16	Memorandum To: Albion City Council and City Officials; From: John W Parker and Robert Hunt; Date 2/19/79; 2pp

MHE
9/23/87

HRS DOCUMENTATION LOG SHEET

SITE NAME Albion Sheridan Township Landfill
CITY Albion STATE MI
IDENTIFICATION NUMBER MID980504450

REFERENCE NUMBER	DESCRIPTION OF THE REFERENCE
17.	Inspection Report for Albion-Sheridan Township Landfill, Albion MI prepared by Suzanne Kozlowski, Ecology & Environment Inc. 3/19/86 24pp (3pp)
18.	MDNR File Notes on Albion Sheridan Township Landfill; 1983; 3pp

MHF
9/23/87